

ENTERED

February 18, 2020

David J. Bradley, Clerk

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DEEP FIX, LLC,	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. H-18-0948
	§	
MARINE WELL CONTAINMENT	§	
COMPANY LLC,	§	
Defendant.	§	

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Plaintiff Deep Fix, LLC (“Deep Fix”) filed this patent infringement case against Defendant Marine Well Containment Company LLC (“MWCC”). In addition to denying infringement, MWCC asserted the affirmative defense of inequitable conduct. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338.

This case was tried to the Court on January 28 and 29, 2020. Each party presented exhibits and live witnesses. Thereafter, MWCC filed its Post-Trial Supplemental Authority [Doc. # 213], and Deep Fix filed its Supplemental Case Law Submission and Review [Doc. # 215]. Based on its review and consideration of the evidence introduced by the parties, all matters of record in this case, the arguments of

counsel and applicable legal authorities, the Court makes the following findings of fact and conclusions of law.¹

I. BACKGROUND²

Charles Adams is the sole inventor of the cap valve covered by United States Patent No. 8,833,393 (“the ’393 Patent”). Through a series of assignments, Deep Fix asserts sole ownership of all interest in the ’393 Patent. Adams died on July 15, 2019, while this lawsuit was pending.

MWCC is a consortium of ten oil and gas companies.³ MWCC manufactures oil and gas well containment systems used in well blowout situations.

On September 3, 2010, Adams filed a provisional patent application for his cap valve invention. *See* Provisional Patent Application No. 61/402,690, Defendant’s

¹ The Court explains the evidence and uses various forms of the word “find” to indicate a finding of fact, and sets forth legal principles and uses forms of the words “hold” and “conclude” to indicate a conclusion of law. To the extent a finding of fact is more properly a conclusion of law, and to the extent a conclusion of law is more properly a finding of fact, it should be so construed.

² Additional factual findings are set forth below in the relevant analysis sections.

³ The ten member companies are ExxonMobil Offshore Well Containment LLC, Chevron Gulf of Mexico Response Company LLC, ConocoPhillips Marine Containment Holdings Company LLC, Shell Offshore Response Company LLC, BP Offshore Response Company LLC, Apache Well Containment LLC, Anadarko Consolidated Holdings LLC, BHP Billiton Petroleum (Deepwater) Inc., StatOil Gulf of Mexico Resopnse Company LLC, and Hess Offshore Response Company LLC. *See* MWCC’s Certificate of Interested Parties [Doc. # 12].

Exhibit (“DX”) 017.⁴ The Provisional Patent Application was mailed to the United States Patent and Trademark Office (“PTO”) on September 2, 2010, by Malcolm “Mac” Woodward. *See id.* at Bates DF000874. Woodward, a non-lawyer, had a close working relationship with Adams and had helped Adams with approximately twenty other patent applications at no charge.

In September 2010, in connection with the Provisional Patent Application, Adams signed and caused to be filed with the PTO a “Verified Statement” representing that he had not assigned his rights in the invention to any “person, concern or organization.” *See* Verified Statement, DX017, at Bates DF000873. In fact, contrary to the Verified Statement, in May 2010, Adams had signed a document purporting to assign to Commonwealth Investment Group (“CIG”) his interest in the invention covered by the ’393 Patent. *See* Assignment to CIG, DX006, at Bates DF001690. A copy of the Assignment to CIG was filed with the PTO on September 10, 2010, in connection with the Provisional Patent Application. *See* Assignment Receipt, DX006, at Bates DF001689; DX017, at Bates DF000876. CIG was an entity wholly owned by Woodward and his wife.

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Many of the exhibits listed as Defendants’ Exhibits were joint exhibits, but the parties agreed to use Defendants’ exhibit numbers.

On September 2, 2011, Adams filed a non-provisional patent application (“Patent Application”), and claimed priority based on the Provisional Patent Application filed in 2010. *See* Patent Application Transmittal, DX029; File History of U.S. Patent Application No. 13/225,378, DX088. The PTO issued the ’393 Patent on September 16, 2014. *See* ’393 Patent, DX024. Adams was represented throughout the non-provisional application process by attorney Mary-Jacq Holroyd.

On September 2, 2011, Adams also filed International Patent Application No. 11/50445 with the Patent Cooperation Treaty’s Receiving Office for the United States (“US/RO”). Adams was represented by attorney Holroyd. The claims in the International Patent Application and the claims in the non-provisional United States Patent Application, filed on the same day, were identical.

In February 2012, while the U.S. Patent Application was pending, the US/RO issued an International Search Report (“ISR”) identifying ten prior art references designated as Category Y documents, signifying that the documents are of “particular relevance.” *See* ISR, DX51, Bates DF001573. Also in February 2012, the US/RO issued a Written Opinion explaining that none of the claims in Adams’s International Patent Application filed under the Patent Cooperation Treaty (“PCT”) were patentable in view of the Category Y prior art documents. *See* Written Opinion, DX52.

It is undisputed that Holroyd decided not to disclose the Category Y documents or the Written Opinion to the PTO in connection with Adams's U.S. Patent Application.

Deep Fix filed this patent infringement lawsuit on March 26, 2018, alleging that three well containment systems manufactured by MWCC infringe the claims of the '393 Patent. MWCC denied infringement, and asserted the affirmative defense of inequitable conduct. *See* Fourth Amended Answer [Doc. # 60], pp. 24-61.

Deep Fix conceded that it has no viable infringement claim against MWCC in light of the Court's Memorandum and Order on Claim Construction [Doc. # 127]. Therefore, MWCC's equitable affirmative defense that inequitable conduct bars Deep Fix from enforcing the '393 Patent against MWCC is an issue to be tried to the Court without a jury. *See Gardco Mfg., Inc. v. Herst Lighting Co.*, 820 F.2d 1209, 1213 (Fed. Cir. 1987); *In re Ethicon, Inc.*, 64 F.3d 671, *1 (Fed. Cir. June 26, 1995). Following a two-day trial of the inequitable conduct defense, the Court now issues these Findings of Fact and Conclusions of Law.

II. STANDARDS FOR INEQUITABLE CONDUCT AFFIRMATIVE DEFENSE

"Inequitable conduct is an equitable defense to patent infringement that, if proved, bars enforcement of a patent." *Regeneron Pharm., Inc. v. Merus N.V.*, 864 F.3d 1343, 1350 (Fed. Cir. 2017), *cert. denied*, 139 S. Ct. 122 (2018) (quoting

Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276, 1285 (Fed. Cir. 2011) (en banc)). Inequitable conduct “regarding a single claim renders the entire patent unenforceable.” *Id.* (quoting *Therasense*, 649 F.3d at 1288).

“Inequitable conduct is an equitable issue committed to the discretion of the trial court and, is therefore, reviewed by [the Federal Circuit] under an abuse of discretion standard.” *Energy Heating, LLC v. Heat On-The-Fly, LLC*, 889 F.3d 1291, 1299 (Fed. Cir. 2018). This Court’s underlying factual findings are reviewed for clear error. *See Am. Calcar, Inc. v. Am. Honda Motor Co., Inc.*, 768 F.3d 1185, 1189 (Fed. Cir. 2014); *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012).

To prevail on an inequitable conduct affirmative defense, the accused infringer must prove by clear and convincing evidence that the patent applicant misrepresented or omitted material information with the specific intent to deceive the Patent and Trademark Office. *See Therasense*, 649 F.3d at 1287. The accused infringer must prove that the patent applicant knew of the undisclosed reference, “knew that it was material, and made a deliberate decision to withhold it.” *Energy Heating*, 889 F.3d at 1299 (citing *Therasense*, 649 F.3d at 1290). “In determining the materiality of a reference, the court applies the preponderance of the evidence standard and gives claims their broadest reasonable construction.” *Regeneron*, 864 F.3d at 1350 (citing

Therasense, 649 F.3d at 1291-92); *see also Am. Calcar*, 768 F.3d at 1189; *Aventis Pharma*, 675 F.3d at 1334. “Intent and materiality must be separately established.” *Am. Calcar*, 768 F.3d at 1189 (citing *Therasense*, 649 F.3d at 1290).

Generally, the “materiality” required for a successful inequitable conduct defense is “but-for” materiality. *See Regeneron*, 864 F.3d at 1350. A prior art reference is “but-for” material if the PTO “would not have allowed a claim had it been aware of the undisclosed prior art.” *Id.* However, when the patentee “has engaged in affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit, the misconduct is material” and no further showing of materiality is required. *Therasense*, 649 F.3d at 1292. A reference is not “but-for material” if it is merely cumulative to information already before the patent examiner. *See Regeneron*, 864 F.3d at 1350.

The party asserting inequitable conduct must also prove “that the patentee acted with the specific intent to deceive the PTO.” *See id.* (quoting *Therasense*, 649 F.3d at 1290). “In a case involving nondisclosure of information, clear and convincing evidence must show that the applicant made a deliberate decision to withhold a known material reference.” *Id.* at 1351.

The alleged infringer need not present direct evidence of intent, and a court may infer intent from circumstantial evidence. *See id.* “An inference of intent to deceive

is appropriate where the applicant engages in ‘a pattern of lack of candor,’ including where the applicant repeatedly makes factual representations ‘contrary to the true information he had in his possession.’” *Id.* (quoting *Apotex Inc. v. UCB, Inc.*, 763 F.3d 1354, 1362 (Fed. Cir. 2014)). Deceptive intent, inferred from indirect and circumstantial evidence, must be “the single most reasonable inference able to be drawn from the evidence.” *See Aventis*, 675 F.3d at 1335 (quoting *Therasense*, 649 F.3d at 1292).

III. INFORMATION WITHHELD FROM PTO

An international patent application is filed under the Patent Cooperation Treaty and is often referred to as a PCT application. A PCT application is filed in one of several Receiving Offices. In this case, Adams’s PCT application was filed in the United States Receiving Office (“US/RO”). PCT applications are examined by private contract employees, the majority of whom have been United States PTO examiners. The examiner assigned to a PCT application performs a search for prior art, and issues an International Search Report (“ISR”). The examiner also issues a Written Opinion stating whether the claims in the PCT application involve novelty, inventive step, and industrial applicability. The Written Opinion includes the examiner’s detailed explanation for his statement regarding these three issues. The Written Opinion is not binding on a PTO examiner reviewing a United States patent application, but it is

information that the PTO examiner may find useful in conducting his own examination of a related U.S. patent application.

In February 2012, while Adams’s U.S. Patent Application was pending, the US/RO issued an ISR identifying ten prior art references, which the examiner classified as “Category Y” documents. Category Y documents are, by definition, documents that are of “particular relevance” because “the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.”⁵ *See* ISR, DX51, Bates DF001573.

Also in February 2012, the US/RO issued a Written Opinion, explaining its position that none of Adams’s claims were patentable in view of the Category Y prior art references because the proposed claims all lacked an inventive step. *See* Written Opinion, DX52. The inventive step issue in a PCT application is similar to the obviousness issue, under 35 U.S.C. § 103, in a United States patent application.

⁵ Category Y references have “particular relevance” in the obviousness analysis of whether it would have been obvious to a person of ordinary skill in the art to combine the relevant disclosures of two or more Category Y references. When the US/RO identifies Category X references, those documents also have “particular reference,” but the relevance is because the “claimed invention cannot be considered novel or cannot be considered to involve an inventive step with the document is taken alone.” *See* ISR, DX51, Bates DF001573.

To prevail on the inequitable conduct affirmative defense based on the failure to disclose the Category Y documents and the Written Opinion, MWCC must prove that Holroyd knew of these documents, knew that the information was material, and made a deliberate decision to withhold it from the PTO. *See Therasense*, 649 F.3d at 1290. It is undisputed that Holroyd knew of the Category Y documents and the Written Opinion. It is further undisputed that Holroyd made a deliberate decision not to disclose this information to the PTO. The remaining issues, therefore, are whether the undisclosed information was “but-for” material (materiality) and whether Holroyd knew it was material (intent to deceive).

A. Materiality

MWCC must prove that at least one of the withheld Category Y documents and/or the Written Opinion was “but-for” material, *i.e.*, that the PTO would not have allowed the ’393 Patent to issue had it been aware of the undisclosed documents. *See Regeneron*, 864 F.3d at 1350. The Court finds that but for Holroyd’s decision not to disclose at least one of the US/RO’s identified prior art references, revised Claim 1 of the Adams Patent Application would have been rejected by the PTO as obvious.

“A patent for a claimed invention may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . . to a person having ordinary skill in the art to

which the claimed invention pertains.” 35 U.S.C. § 103. “The question in an obviousness inquiry is whether it would have been obvious to a person of ordinary skill in the art to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements.” *Game & Tech. Co. v. Wargaming Grp. Ltd.*, 942 F.3d 1343, 1352 (Fed. Cir. 2019). In conducting the obviousness analysis, courts and patent examiners should not look “only to the problem the patentee was trying to solve.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007). It is error to assume “that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem.” *Id.* “[F]amiliar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.*

In the ISR, the US/RO identified ten prior art references which they characterized as Category Y documents, that is, documents of particular relevance. *See* ISR, DX051. The ten Category Y documents, and the trial exhibit numbers for those documents introduced into evidence, are:

GB 1,487,803A (Miffre) - DX054
 US 3,661,408A (Gibbons) - DX055
 US 5,135,024A (LeBlanc) - DX056
 US 6,131,606A (O’Neill) - DX057

US 4,211,255A (Wisbey) - DX058
US 6,676,107B2 (Sticht) - DX059
US 2,497,780A (Lawson)
US 3,771,819A (Hitchens, III)
US 5,666,524A (Martin)
US 5,692,544A (Friedrich)

In the Written Opinion, the US/RO explained that all twenty claims in the PCT application lacked an inventive step and were obvious. *See* Written Opinion, DX052, at Bates DF001577. Specifically, the US/RO explained how each of the twenty claims was obvious in light of Miffre and Gibbons, either the two references combined or the two references in combination with one or more of the other prior art references listed in the ISR. *See id.*, at Bates DF001577-1582. The Court finds persuasive the US/RO's explanation for its conclusion that all the claims in the PCT application were obvious in light of the prior art references identified in the ISR, *i.e.*, the Category Y prior art references that Holroyd admits she decided not to disclose to the PTO. This finding is supported by Holroyd's testimony. First, she testified in her deposition that she decided not to disclose the Category Y prior art references because she thought it would "bias" the PTO examiner to look for those references. *See* Holroyd Deposition [Doc. # 216-1], pp. 96-97. She confirmed her strategy and intention in her trial testimony that she was concerned the PTO would simply issue the same result as the US/RO. The Court finds from this testimony that Holroyd clearly believed the PTO would base its decision on the same obviousness analysis conducted by the

US/RO in its Written Opinion, and that the PTO would reject the claims as obvious if the Category Y documents were disclosed. Her decision to withhold these documents was material to the obviousness issue identified by the US/RO examiner.

At trial, Benton Frederick Baugh, MWCC's technical expert, explained how the original claims in Adams's United States Patent Application were obvious in light of Miffre in combination with Gibbons. Baugh testified that it would be obvious to a person of ordinary skill in the art to combine Miffre and Gibbons, using a hydraulic ram and rotating the invention disclosed in Miffre. Baugh presented a demonstrative exhibit combining Miffre and Gibbons to create a device that contains all elements of the Adams Patent Application. *See* DX228; DX228A (same with handwritten markings); DX228B (same with typed markings). The Court finds Baugh's testimony and the demonstrative exhibits persuasive.

In its first Office Action in July 2013, the PTO rejected all claims in the Adams Patent Application as obvious under § 103. *See* Office Action, DX041. In a second Office Action in March 2014, the PTO again rejected most claims in the Adams Patent Application, including Claim 1, as obvious. *See* March 2014 Office Action, DX88, at Bates DF000783-789. It is clear that obviousness under § 103 was an issue of concern to the PTO in its consideration of the Adams Patent Application.

In response to the second Office Action, Adams through Holroyd filed an Amendment in May 2014. *See* May 2014 Amendment, DX044. In that Amendment, Holroyd cancelled original Claim 2 and combined the elements in that claim into original Claim 1. *See id.*, at Bates DF000720. Each element of Claim 1 as amended was present in Miffre. *See* Demonstrative Exhibits S20 (Adams); S21 (Miffre); S22 (side by side comparison of Adams and Miffre).⁶ As Baugh explained and illustrated, Miffre and Adams both include a riser, multiple outlet ports, a cylindrical valve chamber, a primary seal, a primary hydraulic ram, and a hydraulic chamber. *See id.* The Court finds this evidence credible and very persuasive. The Court finds from this evidence that Claim 1, as amended, would not have been allowed in light of Miffre if Holroyd had disclosed, rather than withheld, the Miffre reference.⁷ Also, because of the highly persuasive testimony by Baugh and demonstrative exhibit DX288 described above, the Court finds that Claim 1, as amended, would not have been allowed in light

⁶ The Court, in this bench trial, admitted into evidence all demonstrative exhibits offered by both parties, including the Baugh demonstrative exhibits that illustrated his trial testimony and were particularly helpful.

⁷ As noted above, “inequitable conduct regarding a single claim renders the entire patent unenforceable.” *Regeneron*, 864 F.3d at 1350 (quoting *Therasense*, 649 F.3d at 1288).

of a combination of Miffre and Gibbons, if Holroyd had disclosed, rather than withheld, these two Category Y references.⁸

The Court finds from the evidence at trial that the US/RO determined that the claims in Adams's PCT application were obvious in light of various combinations of the Category Y documents identified in the ISR. The Court finds credible and persuasive MWCC's expert witness testimony explaining how the claims in the Adams Patent Application were unpatentable as obvious in light of the combination of Miffre and Gibbons, two of the prior art references identified in the ISR. It is clear from the PTO's first Office Action that obviousness was a focus in its examination of the Adams Patent Application from the beginning.⁹ In order to avoid the PTO's Second Office Action rejecting the Patent Application, Holroyd filed a new Amendment that combined original Claim 2 into Claim 1, creating a new Claim 1 in which each element was also present in Miffre. The Court finds by clear and convincing evidence that, but for Holroyd's decision not to disclose the ISR Category Y prior art references – particularly Miffre and Gibbons – to the PTO, the

⁸ The Court carefully considered the testimony of John Paul Hughett, Deep Fix's technical expert. The Court does not find his testimony regarding the lack of relevance of the Category Y references to be persuasive.

⁹ Holroyd's response to the first Office Action was to make minor changes to certain claims in the Patent Application, and to present arguments in opposition to the PTO's obviousness analysis. *See* November 2013 Amendment, DX088, at Bates MWCC00011638-11651.

PTO would have rejected as obvious Claim 1 of the Adams patent. The Court concludes from the foregoing persuasive evidence that MWCC has proven “but for” materiality to support its inequitable conduct affirmative defense.

B. Intent to Deceive

Having proven by clear and convincing evidence that the Category Y documents, as explained in the Written Opinion, were “but-for” material, MWCC must also prove “that the patentee acted with the specific intent to deceive the PTO.” *Therasense*, 649 F.3d at 1290. As noted above, the only remaining issue regarding the intent to deceive is whether Holroyd knew the information was material. The Court finds by clear and convincing evidence that the single most reasonable inference from the evidence in the record is that Holroyd knew the Category Y documents were material and intentionally withheld them from the PTO with the intent to deceive. Although Holroyd testified that she carefully reviewed the Category Y documents and the Written Opinion, and that she believed, contrary to US/RO’s opinion, that the information was irrelevant and/or cumulative, the Court finds that Holroyd’s testimony is not credible. The Court’s finding regarding Holroyd’s intent to deceive is not, however, based only on its finding that Holroyd’s testimony lacks credibility. Instead, the Court’s finding is also based on other evidence in the record as explained below.

As discussed above, the US/RO on February 10, 2012, issued an ISR identifying ten prior art references as “Documents Considered to Be Relevant.” *See* ISR, DX51. Each of the ten prior art references was designated Category Y, which by definition is a “document of particular reference” and “the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.” *Id.* Therefore, the ISR identified the Category Y documents and stated that it would be obvious to a person skilled in the art to combine two or more of the Category Y references. *Id.*

In the Written Opinion, the US/RO explained in detail how the combination of certain Category Y documents identified in the ISR caused specific claims in the PCT application to lack an inventive step. *See* Written Opinion, DX052, at Bates DF001577-1582. For example, the US/RO explained in the Written Opinion that certain claims lacked an inventive step because they were obvious in light of Miffre and Gibbons. *See id.* at Bates DF001577 (Claims 11, 17 and 19). Other claims lacked an inventive step because they were obvious in light of Miffre, Gibbons, and other identified Category Y document(s). *See id.* at Bates DF001577-1580 (Claims 1, 2, 4, 6-9, 12, 14, 16, and 18). For example, the US/RO explained that many of the claims

in the PCT Application lacked an inventive step as obvious in light of Miffre and Gibbons combined with Category Y reference LeBlanc. *See id.*

“Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the [PTO], which includes a duty to disclose to the [PTO] all information known to that individual to be material to patentability” 37 C.F.R. § 1.56(a) (“Rule 56”); *see also Supernus Pharm., Inc. v. Iancu*, 913 F.3d 1351, 1354 n.1 (Fed. Cir. 2019) (citing 37 C.F.R. § 1.56(a)) (“the applicant generally has a duty of candor and good faith that includes a duty to disclose all information known to the applicant to be material to the patentability of the claims”). Under Rule 56, information can be material to patentability if it establishes “by itself or in combination with other information, a prima facie case of unpatentability.” 37 C.F.R. § 1.56(b)(1). “A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence burden of proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and *before* any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.” 37 C.F.R. § 1.56(b) (emphasis added).

Chapter 2000 of the PTO’s Manual of Patent Examining Procedure (“MPEP”) relates to the patent practitioner’s Rule 56 duty of disclosure.¹⁰ *See* Trial Testimony of Robert L. Stoll.¹¹ Section 2001.06(a) of the MPEP provides that there is a “duty to bring to the attention of the [PTO] any material prior art or other information cited or brought to their attention in any related foreign application.” MPEP § 2001.06(a). The inference that prior art cited in a related foreign application is material is “especially strong” when it was relied upon to reject “the same or similar claims in the foreign application or where it has been identified in some manner as particularly relevant.” *Id.* Applicants are “encouraged to ‘carefully examine’ prior art cited in search reports of a foreign patent office in a counterpart application ‘to make sure that any material information contained therein is disclosed’ to the USPTO.” *Supernus*, 913 F.3d at 1354 n.1.

¹⁰ Unlike Rule 56, the sections of the MPEP cited herein are not binding and, instead, are guidelines to help a patent practitioner comply with the Rule 56 duty of disclosure.

¹¹ The Court finds Stoll’s testimony credible and persuasive. The Court has also considered the testimony of Prof. Paul M. Janicke, Deep Fix’s expert on PTO procedures. Prof. Janicke’s testimony does not change the Court’s findings of fact and conclusions of law regarding inequitable conduct. Indeed, Prof. Janicke testified that he would have filed the Category Y documents with the PTO, and that it would be improper to try to bias the PTO examiner away from relevant prior art references.

To help patent practitioners comply with their Rule 56 duty of disclosure, the PTO has issued other “aids to compliance” as part of the MPEP. *See Aids to Compliance with Duty of Disclosure*, MPEP § 2004, DX163. In item 6, the PTO notes that a reference may be highly material because it discloses a more complete combination of relevant features than those already before the patent examiner, but notes also that submission of a prior art reference may be required even if it is not as close as prior art references already in the record.¹² *See id.*, § 2004(6).

In item 10, the PTO advises that if there is any doubt, “it is desirable and safest to submit information.” *See id.*, § 2004(10). Item 13 asks the practitioner to “avoid the submission of long lists of documents if it can be avoided.” *Id.*, § 2004(13). The final item, number 18, states that “if information was specifically considered and discarded as not material, this fact might be recorded in an attorney’s file . . . ,

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Item 6 states in its entirety:

6. It may be useful to evaluate the materiality of prior art or other information from the viewpoint of whether it is the closest prior art or other information. This will tend to put the prior art or other information in better perspective. *See Semiconductor Energy Laboratory Co. v. Samsung Electronics Co.*, 204 F.3d 1368, 1374, 54 USPQ2d 1001, 1005 (Fed. Cir. 2000) (“A withheld reference may be highly material when it discloses a more complete combination of relevant features, even if those features are before the patent examiner in other references.” (citations omitted)). However, 37 CFR 1.56 . . . may still require the submission of prior art or other information which is not as close as that of record.

including the reason for discarding it.” *Id.*, § 2004(18). The PTO notes that this note-taking is not required, but “could be helpful in recalling and explaining actions” should an issue of inequitable conduct later arise. *See id.*

Holroyd, as an experienced patent practitioner and as she admitted during her trial testimony, was aware of Rule 56 and the guidelines in the MPEP. Indeed, during her testimony, Holroyd repeatedly mentioned Item 13 of Chapter 2004, regarding avoiding the submission of long lists of documents if possible. Holroyd testified specifically that she had been involved in almost 200 patent applications, and that in all other cases she disclosed to the PTO all references identified by the US/RO in an ISR. Holroyd admitted, however, that in this case, she decided not to disclose the Category Y references and the Written Opinion to the PTO. Holroyd testified that she carefully reviewed the Category Y references and determined that, in her personal opinion, they were irrelevant and/or cumulative. Holroyd admitted that she did not prepare any contemporaneous notes that would reflect her review of the Category Y documents and the Written Opinion, or her conclusions based on that review, testifying that she has an excellent memory. During trial, however, Holroyd was unable to explain the basis for her professed conclusion that the references were irrelevant and/or cumulative, and seemed unfamiliar with the prior art references. Indeed, when asked to explain how each of the US/RO’s cited references were either

irrelevant or cumulative, Holroyd appeared to say anything that came to her mind in the moment. For example, at one point during her testimony, she misidentified a pressure recording device as a hydraulic ram.

Holroyd testified candidly during her deposition that she decided not to disclose the Category Y documents and the Written Opinion because she did not want to “bias” the PTO to rely on those references instead of searching for other prior art. *See* Holroyd Depo., pp. 96-97. Holroyd knew at that time that the Category Y prior art references caused the US/RO to conclude that all claims in the PCT application lacked an inventive step, and the claims before the US/RO were identical to those in the Adams Patent Application then pending without a response from the PTO. At trial, Holroyd tried to explain this deposition testimony to mean that she merely wanted the PTO to conduct its own thorough search for prior art references and find “better” ones. The Court finds Holroyd’s testimony, even cast in the light most favorable to Holroyd, demonstrates that Holroyd decided not to disclose the US/RO documents in order -- intentionally -- to hide those references from, and thereby deceive, the PTO. In fact, as expressed in her deposition, Holroyd hoped to prevent the PTO from having the same opinion as the US/RO regarding the obviousness of the claims.

On July 15, 2013, the PTO issued its first Office Action. *See* Office Action, DX041. At that time, Holroyd had been in possession of the Category Y documents

and the Written Opinion explaining their relevance for seventeen (17) months during which she did not disclose the information to the PTO. In the July 2013 Office Action, the PTO rejected all claims in Adams's Patent Application under 35 U.S.C. § 103 as obvious. *See id.*, at Bates DF000783-789. The PTO – being unaware of the Category Y documents – relied on prior art references different from the US/RO. *See id.*, at Bates DF000791-792. Nonetheless, Holroyd was aware at this point that the PTO was conducting an obviousness analysis for the claims in the Patent Application, an analysis also conducted by the US/RO in connection with the identical claims in the PCT application.

Adams filed an Amendment to the Adams Patent Application on November 15, 2013. *See* November 2013 Amendment, DX088, at Bates MWCC00011638-11651. Holroyd, on Adams's behalf, made limited modifications to certain claims in the Patent Application, and presented arguments in opposition to the PTO's obviousness analysis. In her response to the rejection of all claims based on obviousness, Holroyd again decided not to disclose the US/RO documents to the PTO.¹³ Instead, Holroyd

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Even if the Court found credible and persuasive Holroyd's explanation that her deposition testimony regarding not wanting to "bias" the PTO examiner meant only that she wanted the PTO to perform its own independent search for prior art references, by the time the Office Action was issued in July 2013, the PTO examiner had performed that independent search. At that point, Holroyd's expressed rationale for not disclosing the US/RO documents no longer existed. Yet she again decided not to disclose to the PTO the Category Y documents and the Written Opinion.

cited an article from the New York Times entitled “Efforts to Stop the Leaking Oil in the Gulf of Mexico.” *See id.*, at Bates MWCC00011648-11650; DX081.

On March 24, 2014, the PTO issued a second Office Action responding to Adams’s November 2013 Amendment. *See* Second Office Action, DX088, at Bates MWCC00011672-11681. The PTO again rejected Claims 1, 3, 4, and 10, the independent claims in the Patent Application, as obvious under § 103. The PTO noted that other claims were dependent on rejected claims and needed to be rewritten in independent form to be considered for allowance. *See id.*, at Bates MWCC00011677-11680. Thus, Holroyd again was made aware of the PTO’s focus on the obviousness problem, and she again decided not to disclose the Category Y documents and the Written Opinion.

Instead, on May 27, 2014, Holroyd filed another Amendment. *See* May 2014 Amendment, DX44. As discussed above, this Amendment substituted original claim 2 for claim 1, thereby creating an amended Claim 1 containing all elements from Category Y document Miffre. Holroyd, however, again decided not to disclose Miffre to the PTO.

Holroyd testified at trial that she decided not to disclose the Category Y documents and the Written Opinion – either with the original Patent Application, at any time before the first PTO Office Action, in response to the first PTO Office

Action, or in response to the second PTO Office Action – for a variety of reasons. For example, she testified that she chose not to disclose any of the US/RO references because they did not involve a device specifically designed to address the problem of a “runaway well,” that she decided not to disclose the Gibbons reference to the PTO because it related to a device that was not used under water and was not operated by a remotely operated vehicle (“ROV”), that she did not disclose Category Y document O’Neill because it was operated by a solenoid,¹⁴ and decided not to disclose Wisbey because it involved a device used in a different industry. She conceded, however, that she had disclosed United States Patent No. 4,051,676 (“Ledeen”)¹⁵ as a material prior art reference, and that Ledeen did not address a “runaway well” problem, did not operate under water, was not operated by an ROV, could be activated by a solenoid, and was not used in the oil and gas industry.

The Court finds by clear and convincing evidence that the single most reasonable inference from the evidence presented at trial is that Holroyd decided not to disclose the US/RO’s Written Opinion and the Category Y documents identified in the ISR with an intent to deceive the PTO. Rule 56, in the Code of Federal Regulations, requires disclosure of information that compels a finding of

¹⁴ A solenoid is a coil of wire that operates like a bar magnet when carrying a current.

¹⁵ DX170.

unpatentability “*before* any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.” 37 C.F.R. § 1.56(b) (emphasis added). The Court finds that Holroyd knew the US/RO materials were material because they would likely result in a rejection of at least one of the claims in Adams’s Patent Application. The Court’s finding of intent to deceive is not based only on Holroyd’s lack of credibility, but also on the other evidence described above.

The Court therefore concludes that MWCC has proven by clear and convincing evidence both “but-for” materiality and intent to deceive as to Holroyd’s decision to withhold the Category Y documents and the US/RO’s Written Opinion. As a result, MWCC has proven its affirmative defense of inequitable conduct based on the intentional withholding of these documents.

IV. VERIFIED STATEMENT REGARDING ASSIGNMENTS

On May 13, 2010, Adams signed a document in which he did “hereby assign” his interest in the patent application and related technology to Commonwealth Investment Group (“CIG”). *See* Assignment, DX006, Bates DF001690. On September 2, 2010, Adams signed and caused to be filed with the PTO a Verified Statement representing that he had not assigned his rights in the invention to any “person, concern or organization.” *See* Verified Statement, DX017, Bates DF000873.

The section of the Verified Statement for the full name and address of each assignee is marked through. *See id.* The Verified Statement includes an acknowledgment that willful false statements “are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.” *Id.*

In his deposition, Malcolm Woodward, who prepared the Verified Statement for Adams’s signature, testified that he owned the rights to the invention “via the assignment from Charles Adams to Commonwealth Investment Group” from May 13, 2010, “up to September.” *See* Deposition of Malcolm Woodward, DX225, p. 146. He clarified during his deposition testimony that the assignment was valid at the time he filed the provisional patent application on September 2, 2010. *See* Woodward Depo., p. 142. When asked at his deposition whether, before September 2, 2010, anyone had “reassigned the interest in the invention back to Charles Adams,” Woodward testified that it was “[o]nly after the fact, in September, probably later in the day or two or whatever.” *Id.* at 192. Therefore, at the time of Woodward’s deposition on June 4, 2019, it was his consistent testimony that as of September 2, 2010, there was an assignment from Adams to CIG that was later revoked in some

manner. Woodward testified further that he mailed the Verified Statement to the PTO aware that it was a false statement. *See id.* at 153.

At the time of the parties' briefing on MWCC's motion for summary judgment on the inequitable conduct issue, Deep Fix correctly noted that Adams and Woodward submitted to the PTO a copy of the assignment from Adams to CIG in connection with the provisional application package. *See* Memorandum in Opposition [Doc. # 177], p. 17. Deep Fix argued at that time that, "because the assignment itself was already included with the application," the "most likely explanation" for Woodward having checked the box indicating no assignment to any person, concern, or organization was that he "believed that he only needed to list assignees not already disclosed." *See id.* at 17-18.

At trial, Woodward testified, contrary to his deposition testimony, that he "abrogated" the assignment in late August 2010, rather than soon after September 2, 2010. Woodward testified that his deposition testimony was incorrect because he was tired at the time. Woodward testified that his actions were an attempt to facilitate Adams getting a patent. When questioned at trial about his deposition testimony that when the provisional patent application was submitted on September 2, 2010, CIG had 100% ownership interest in the patent, Woodward testified that was a mistake. This trial testimony is not credible. Although Woodward submitted an Errata Sheet

regarding his deposition testimony with thirteen corrections, he did not correct this testimony. *See* Errata Sheet, DX221. The Court finds Woodward's deposition testimony accurately represents the facts.

Logic also belies Woodward's revised testimony at trial. If the "assignment" had been abrogated at the time Woodward helped Adams file the provisional patent application, there was no reason to include the assignment in the application package.

Additionally and significantly, it was CIG, not Adams, that prepared an invoice to be sent to Kenneth Feinberg, the Administrator for Gulf Coast Claims in connection with the "Deepwater Horizon Site." *See* Invoice, DX013, Bates WALZ150. The invoice, dated September 7, 2010, a week after the Verified Statement was submitted to the PTO, sought payment of \$25,000,000 for a single use license for the Gypsy Cap Valve that was the subject of the provisional patent application. *See id.* The Licensor is identified as CIG. *See id.*, Bates WALZ158. Exhibit A to the Invoice is an excerpt from the patent application stating that Adams is the inventor and that the "proprietary information" has been assigned to CIG. *See id.*, Bates WALZ160. Exhibit B to the Invoice is a copy of the May 2010 assignment. *See id.*, Bates WALZ161. If the assignment had been abrogated in late August 2010, as Woodward wanted this Court to believe at trial, CIG would have had no ability to grant, or charge \$25,000,000 for, a license on September 7, 2010.

The Court finds that Adams assigned his interest in the Cap Valve that was the subject of the provisional patent application, and that the assignment remained valid as of September 2, 2010, when the Verified Statement was filed with the PTO. Therefore, the Verified Statement was false. Woodward and Adams filed the false Verified Statement, and “the filing of an unmistakably false affidavit . . . is material” and no further showing of materiality is required. *See Therasense*, 649 F.3d at 1292. Therefore, the Court concludes that Adams engaged in inequitable conduct by submitting the false Verified Statement to the PTO.¹⁶

V. CONCLUSION AND ORDER

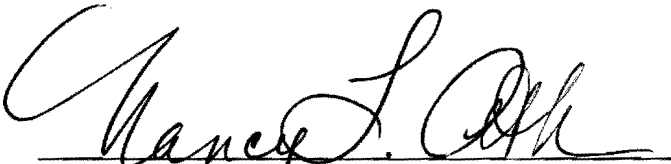
With reference to the US/RO documents, the Court finds by clear and convincing evidence that Holroyd knew of the undisclosed references, knew that the documents were material, and made a deliberate decision to withhold them from the PTO. The Court further finds by clear and convincing evidence that Adams, through Woodward, knowingly submitted a false affidavit to the PTO regarding the assignment from Adams to CIG. Based on the foregoing findings of fact and conclusions of law, it is hereby

¹⁶ Even if the Court were to accept Woodward’s revised testimony that the assignment had been abrogated by September 2, 2010, Adams engaged in inequitable conduct by submitting the assignment to the PTO as a valid assignment knowing that it had been abrogated.

ORDERED that MWCC has proven its inequitable conduct affirmative defense by clear and convincing evidence, both as to the withholding of the Category Y documents, and as to the filing of the false Verified Statement regarding the assignment from Adams to CIG. It is further

ORDERED that counsel shall appear before the Court on **March 5, 2020, at 11:00 a.m.** for a status conference, unless by **February 27, 2020**, the parties have submitted an agreed (as to form) judgment for final disposition of this lawsuit.

SIGNED at Houston, Texas, this **18th** day of **February, 2020**.



NANCY F. ATLAS
SENIOR UNITED STATES DISTRICT JUDGE